10/605,987

(FILE 'HOME' ENTERED AT 16:44:12 ON 20 JUL 2005)

FILE 'CAPLUS' ENTERED AT 16:44:28 ON 20 JUL 2005

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=> s metal chelate#
      1582127 METAL
        63359 CHELATE#
L1     8918 METAL CHELATE#
             (METAL(W)CHELATE#)

=> s l1 and amino acid#
      1031734 AMINO
      4487296 ACID#
       653322 AMINO ACID#
             (AMINO(W)ACID#)
L2       408 L1 AND AMINO ACID#

=> s l2 and sugar
       240971 SUGAR
L3          3 L2 AND SUGAR

=> d 1-3 bib abs

L3   ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2005 ACS on STN
AN   2005:123217  CAPLUS
DN   142:218065
TI   Metal complexes produced by Maillard reaction products
IN   Trusovs, Sergejs
PA   JH Biotech, Inc., USA
SO   U.S. Pat. Appl. Publ., 7 pp.
     CODEN: USXXCO
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE       APPLICATION NO.        DATE
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PI   US 2005033037        A1    20050210   US 2003-605987         20031112
     JP 2005145965        A2    20050609   JP 2004-327198         20041111
PRAI US 2002-425777P      P     20021113
     US 2003-457802P      P     20030326
     US 2003-605987       A     20031112
AB   A method is disclosed for the formation of metal
     chelates which are able to remain stable in highly alkaline
     environments when compared to metal chelates produced
     from a reaction with amino acids.  The method involves
     the reaction of sugars (e.g., glucose or sucrose), amino groups (e.g.,
     glycine), and metal components (e.g., iron, copper, or zinc) for a
     sufficient period of time and temperature in a water solution  Addnl., the
     stability of metal chelates can be enhanced by oxidation
     of the sugars with an oxidizing agent such as hydrogen peroxide which form
     a Maillard reaction product which will react with the metal component to
     form a more stable metal chelate than if oxidation were
     not utilized.

L3   ANSWER 2 OF 3  CAPLUS  COPYRIGHT 2005 ACS on STN
AN   2004:162337  CAPLUS
DN   140:213577
TI   Compositions and methods for detection and isolation of phosphorylated
     molecules
IN   Agnew, Brian; Beechem, Joseph; Gee, Kyle; Haugland, Richard; Liu, Jixiang;
     Martin, Vladimir; Patton, Wayne; Steinberg, Thomas
PA   USA
SO   U.S. Pat. Appl. Publ., 83 pp.
     CODEN: USXXCO
DT   Patent
LA   English
FAN.CNT 3
     PATENT NO.          KIND   DATE       APPLICATION NO.        DATE
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PI	US 2004038306	A1	20040226	US 2003-428192	20030502
	CA 2483868	AA	20040521	CA 2003-2483868	20030502
	WO 2004042347	A2	20040521	WO 2003-US13765	20030502
	WO 2004042347	A3	20050414		
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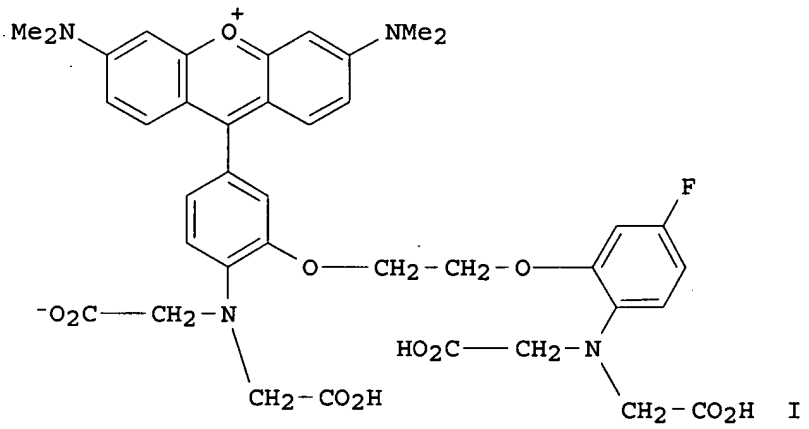
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1546118	A2	20050629	EP 2003-799756	20030502
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	US 2004171034	A1	20040902	US 2003-703816	20031107
	US 2005014197	A1	20050120	US 2004-821522	20040409
PRAI	US 2002-377733P	P	20020503		
	US 2002-393059P	P	20020628		
	US 2002-407255P	P	20020830		
	US 2003-440252P	P	20030114		
	US 2003-428192	A2	20030502		
	WO 2003-US13765	W	20030502		
	US 2003-703816	A2	20031107		

OS MARPAT 140:213577

GI



I

AB The present invention relates to phosphate-binding compds. that find use in binding, detecting and isolating phosphorylated target mols. including the subsequent identification of target mols. that interact with phosphorylated target mols. or mols. capable of being phosphorylated. A binding solution is provide that comprises a phosphate-binding compound, an acid and a metal ion wherein the metal ion simultaneously interacts with an exposed phosphate group on a target mol. and the metal chelating moiety of the phosphate-binding compound forming a bridge between the phosphate-binding compound and a phosphorylated target mol. resulting in a ternary complex. The binding solution of the present invention finds use in binding and detecting immobilized and solubilized phosphorylated target mols., isolation of phosphorylated target mols. from a complex mixture and aiding in proteomic anal. wherein kinase and phosphatase substrates and enzymes can be identified. A human MRC-5 lung fibroblast cell lysate protein mixture was separated by two-dimensional gel electrophoresis. The gel was fixed and then phosphoproteins were stained with a solution containing 50 mM NaOAc, pH 4.0, 250 mM NaCl, 20% volume/volume 1,2-propanediol, 1 μM rhodamine-BAPTA chelating compound I, and 1 μM gallium chloride.

L3 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1978:562075 CAPLUS
DN 89:162075
TI Increasing the metal content in animal tissues
IN Ashmead, Harvey Harold
PA USA
SO Ger. Offen., 57 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 2755709	A1	19780622	DE 1977-2755709	19771214
PRAI US 1976-741694	A	19761217		

AB Metalloproteins containing Ca, Mg, Zn, Fe, Mn, Cu, Co, Mo, Cr, or V are used as livestock mineral supplements. These metals can also be used as di- and tripeptide or **amino acid** chelates as edible oil stabilizers. All the above **metal chelates** can also be added to bakery products, meat and meat-like products, salts, seasonings, and **sugar**-high products as mineral supplements. Thus, salt containing metalloproteins was added at 2 g/300 g steak to supply Zn 7.5, Fe 9 and Ca 1 mg; these levels equal .apprx.5% of the min. daily requirements for these minerals.

=> s l2 and carbohydrates
137219 CARBOHYDRATES
L4 16 L2 AND CARBOHYDRATES

=> d 1-16 bib abs

L4 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:182279 CAPLUS
DN 142:257284
TI Method and device for biochemical detection and analysis of subcellular compartments from a single cell
IN Chiu, Daniel T.; Sun, Bingyun; Shelby, James Patrick; Edgar, John Scott; Jeffries, Gavin; Lorenz, Robert M.; Kuo, Jason S.; He, Mingyan; Allen, Peter B.; Mutch, Sarah; Kuyper, Christopher L.; Fiorini, Gina S.; Lim, David S. W.
PA USA
SO U.S. Pat. Appl. Publ., 31 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2005048581	A1	20050303	US 2004-926656	20040825
PRAI US 2003-497874P	P	20030825		

AB A method and system for performing biochem. detection or anal. on micro- and nanoscale subcellular component within a single biol. cell is provided. An integrated platform device and method to perform the biochem. anal. is also provided.

L4 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:123217 CAPLUS
DN 142:218065
TI Metal complexes produced by Maillard reaction products
IN Trusovs, Sergejs
PA JH Biotech, Inc., USA
SO U.S. Pat. Appl. Publ., 7 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2005033037	A1	20050210	US 2003-605987	20031112

	JP 2005145965	A2	20050609	JP 2004-327198	20041111
PRAI	US 2002-425777P	P	20021113		
	US 2003-457802P	P	20030326		
	US 2003-605987	A	20031112		

AB A method is disclosed for the formation of **metal chelates** which are able to remain stable in highly alkaline environments when compared to **metal chelates** produced from a reaction with **amino acids**. The method involves the reaction of sugars (e.g., glucose or sucrose), amino groups (e.g., glycine), and metal components (e.g., iron, copper, or zinc) for a sufficient period of time and temperature in a water solution Addnl., the stability of **metal chelates** can be enhanced by oxidation of the sugars with an oxidizing agent such as hydrogen peroxide which form a Maillard reaction product which will react with the metal component to form a more stable **metal chelate** than if oxidation were not utilized.

L4 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:162337 CAPLUS
DN 140:213577
TI Compositions and methods for detection and isolation of phosphorylated molecules
IN Agnew, Brian; Beechem, Joseph; Gee, Kyle; Haugland, Richard; Liu, Jixiang; Martin, Vladimir; Patton, Wayne; Steinberg, Thomas
PA USA
SO U.S. Pat. Appl. Publ., 83 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004038306	A1	20040226	US 2003-428192	20030502
	CA 2483868	AA	20040521	CA 2003-2483868	20030502
	WO 2004042347	A2	20040521	WO 2003-US13765	20030502
	WO 2004042347	A3	20050414		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1546118	A2	20050629	EP 2003-799756	20030502
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	US 2004171034	A1	20040902	US 2003-703816	20031107
	US 2005014197	A1	20050120	US 2004-821522	20040409
PRAI	US 2002-377733P	P	20020503		
	US 2002-393059P	P	20020628		
	US 2002-407255P	P	20020830		
	US 2003-440252P	P	20030114		
	US 2003-428192	A2	20030502		
	WO 2003-US13765	W	20030502		
	US 2003-703816	A2	20031107		

OS MARPAT 140:213577
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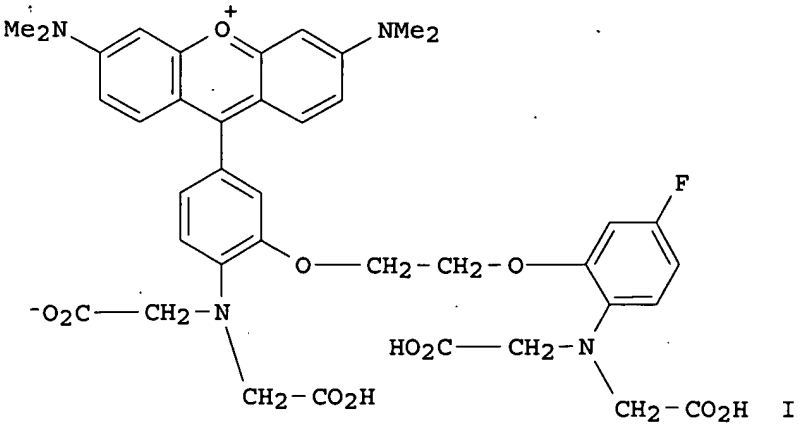

I

AB The present invention relates to phosphate-binding compds. that find use in binding, detecting and isolating phosphorylated target mols. including the subsequent identification of target mols. that interact with phosphorylated target mols. or mols. capable of being phosphorylated. A binding solution is provide that comprises a phosphate-binding compound, an acid and a metal ion wherein the metal ion simultaneously interacts with an exposed phosphate group on a target mol. and the metal chelating moiety of the phosphate-binding compound forming a bridge between the phosphate-binding compound and a phosphorylated target mol. resulting in a ternary complex. The binding solution of the present invention finds use in binding and detecting immobilized and solubilized phosphorylated target mols., isolation of phosphorylated target mols. from a complex mixture and aiding in proteomic anal. wherein kinase and phosphatase substrates and enzymes can be identified. A human MRC-5 lung fibroblast cell lysate protein mixture was separated by two-dimensional gel electrophoresis. The gel was fixed and then phosphoproteins were stained with a solution containing 50 mM NaOAc, pH 4.0, 250 mM NaCl, 20% volume/volume 1,2-propanediol, 1 μM rhodamine-BAPTA chelating compound I, and 1 μM gallium chloride.

L4 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:837037 CAPLUS
DN 139:319684
TI **Metal chelate** composition, its macromolecule complex, method of preparation and application as affinity chromatographic stationary phase
IN Kim, Seong-Kyu; Choi, Ho-Il; Jung, Young-Hwan; Lim, Chae-Jin
PA Peptron Co., Ltd., S. Korea
SO PCT Int. Appl., 15 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003087047	A1	20031023	WO 2002-KR948	20020520
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	KR 2002-19734	A	20020411		

OS MARPAT 139:319684
AB The present invention provides a novel **metal chelate** composition and its macromol. complex. The invention also provides a preparation method of the **metal chelate** composition and method of using the **metal chelate** composition in purifying substance like

peptide. The **metal chelate** composition of the present invention is expressed by the formula HS-R.sub.1 -CH(COOH)-N-(CH.sub.2 COOH).sub.2 (wherein R.sub.1 represents alkyl group linker having 1.apprx.5 carbon atoms), and exhibits sufficient affinity and stability on the substance to be purified by simple process.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:719230 CAPLUS
DN 139:241693
TI Selective herbicide compositions comprising transition **metal chelates**
IN Sedun, Frederick S.; Taylor, Kim F.; Wilson, Cameron D.; Parker, Diana L.; Almond, David S.
PA W. Neudorff G.m.b.H. K.-G., Germany
SO PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2003073856	A1	20030912	WO 2003-EP2069	20030228
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003181332	A1	20030925	US 2003-374643	20030226
CA 2477493	AA	20030912	CA 2003-2477493	20030228
EP 1489909	A1	20041229	EP 2003-743354	20030228
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRAI US 2002-361217P	P	20020301		
WO 2003-EP2069	W	20030228		

AB An environmentally safe selective herbicide is provided that includes at least one metal component and at least one chelating agent. The metal component can have a variety of forms, but is preferably in the form of a metal salt, a **metal chelate**, or combinations thereof. The chelating agent can also have a variety of forms, but is preferably in the form of a **metal chelate**, a salt, an acid, or combinations thereof.

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:696549 CAPLUS
DN 137:212847
TI Imaging of enzymatic activity by magnetic resonance with polymerizable substrates containing a chelated paramagnetic or superparamagnetic metal atom or ion
IN Bogdanov, Alexei; Weissleder, Ralph
PA The General Hospital Corp., USA
SO U.S. Pat. Appl. Publ., 18 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2002127629	A1	20020912	US 2001-999665	20011019
US 6737247	B2	20040518		
CA 2425873	AA	20020425	CA 2001-2425873	20011019

	WO 2002032291	A2	20020425	WO 2001-US45532	20011019
	WO 2002032291	A3	20030206		
	WO 2002032291	C2	20030417		

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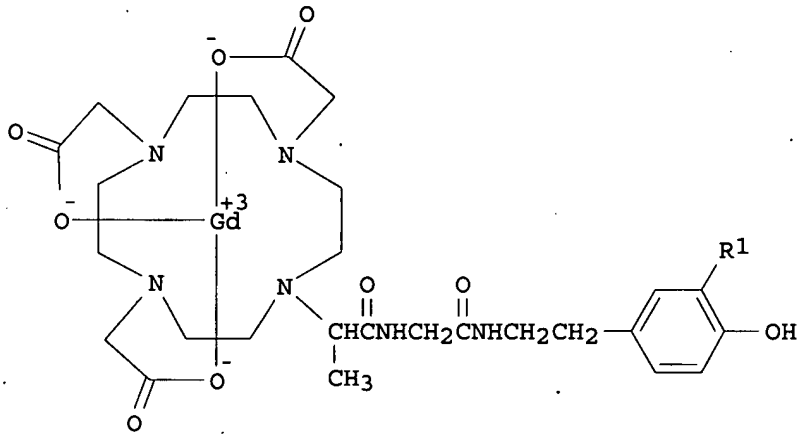
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

	JP 2004530408	T2	20041007	JP 2002-535534	20011019
	US 2004241096	A1	20041202	US 2004-837504	20040430
PRAI	US 2000-241566P	P	20001019		
	US 2001-310335P	P	20010806		
	US 2001-999665	A3	20011019		
	WO 2001-US45532	W	20011019		

OS MARPAT 137:212847

GI



I

AB The invention features methods of detecting enzymic activity (e.g., in a magnetic resonance image) based on the discovery that enzyme activity can be used to amplify the decrease in local proton relaxation rates produced by chelated gadolinium (Gd) or other metals. This amplification results from enzyme-dependent polymerization of a monomeric substrate in which the metal atom or ion is chelated. In general, the methods include: (1) providing a monomeric substrate (e.g., a substrate that is polymerizable in the presence of an enzyme or as a result of an enzyme-catalyzed reaction), having the generic structure X-Y-Z, where X includes a chelator moiety having a chelated paramagnetic or superparamagnetic metal atom or ion, Y includes a linker moiety (e.g., to provide a covalent or non-covalent chemical bond or bonds between X and Z), and Z includes a polymerizing moiety; (2) contacting the substrate with a target tissue, wherein the substrate undergoes polymerization to form a paramagnetic or superparamagnetic polymer, the polymerization being catalyzed by an enzyme in an extracellular matrix or bound to the surfaces of cells of the target tissue; and (3) detecting an increase in relaxivity for the polymer relative to an equivalent amount of unpolymd. substrate. The invention also features substrate compns. such as tyraminyl-DOTA(Gd) (I, R1 = H) and dopamine-DOTA(Gd) (I, R1 = OH), where DOTA = 1,4,7,10-tetraazacyclododecane-N,N',N'',N'''-tetraacetic acid.

L4 ANSWER 7 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:409606 CAPLUS

DN 131:56136

TI Dendritic polymer-saccharide conjugates and their preparation for use in NMR contrast·media

IN Berndorff, Dietmar; Mareski, Peter; Misselwitz, Bernd; Platzek, Johannes; Raduechel, Bernd; Weinmann, Hanns-Joachim
PA Schering A.-G., Germany
SO Ger. Offen., 54 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 19758105	A1	19990624	DE 1997-19758105	19971218
WO 9932154	A1	19990701	WO 1998-EP7927	19981209
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9922680	A1	19990712	AU 1999-22680	19981209
EP 1037672	A1	20000927	EP 1998-966256	19981209
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001526247	T2	20011218	JP 2000-525144	19981209
PRAI DE 1997-19758105	A	19971218		
WO 1998-EP7927	W	19981209		

AB The title conjugates, PKm(LZ)n (P = dendritic polymer with 12-150 amino groups; K = **metal chelate** group as detectable label; L = linker; Z = mono- or oligosaccharide group; m, n = 1-149), are excellent contrast agents for NMR diagnostics, especially for lymphog. These conjugates are accumulated by the lymphatic system adequately for imaging, in some cases even sufficiently for morphol. differentiation of lymph nodes. They are relatively nontoxic, are excreted slowly (>98% in 14 days), and show a high relaxivity which allows their use in low dosages. Thus, a dendritic polyamine with 64 amino groups, of which 38 bore Gd-DTPA chelate groups and 26 were substituted with 1-(4-thioureidophenyl)-α-D-mannopyranosyl groups, when injected i.v. at 200 μmol Gd/kg into rats, was accumulated in the liver, spleen, and especially in the mesenteric and peripheral lymph nodes. Owing to the high relaxivity of this compound in water (17.0 L/mmol s), a dose of ≥10 μmol Gd/kg for i.v. NMR lymphog. is recommended. Preparation of this and other contrast agents from the unsubstituted dendritic polyamines is described.

L4 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:53428 CAPLUS
DN 130:125343
TI Saccharide conjugates, their preparation and use as contrast agents and therapeutic agents
IN Mareski, Peter; Platzek, Johannes; Raduechel, Bernd; Berndorff, Dietmar; Weinmann, Hanns-Joachim
PA Schering Aktiengesellschaft, Germany
SO PCT Int. Appl., 189 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9901160	A1	19990114	WO 1998-EP3142	19980527
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
DE 19728954	C1	19990422	DE 1997-19728954	19970630
AU 9882109	A1	19990125	AU 1998-82109	19980527
PRAI DE 1997-19728954	A	19970630		
WO 1998-EP3142	W	19980527		

AB Conjugates PKm(LZ)n [P = polymer containing k amino groups; K =

signal-generating chelating group containing metal ion; Z = mono- or oligosaccharide; L = linker; m, n = 1-149; k = 12-150; (m + n) ≤ k], optionally addnl. containing cations of inorg. and/or organic bases, **amino acids**, or **amino acid** amides, are valuable compds. for diagnosis and therapy, especially for NMR lymphog. These compds. are accumulated by lymph nodes and the lymphatic system sufficiently for good imaging, are well tolerated, have a low excretion time (generally >98% elimination within 14 days) and a high relaxivity, show no species-specific aberrations, and frequently allow morphol. differentiation of lymph node tissue. For diagnostic NMR imaging, the metal ion is paramagnetic; for therapeutic use of the conjugates, the metal ion is radioactive. Thus, DTPA monoanhydride mono-Et ester reacted with poly-L-lysine-HBr in aqueous solution at pH 9.5 to form a conjugate with a degree of substitution (d.s.) of 58.7% (47 DTPA units/mol.). This conjugate reacted with p-isothiocyanatophenyl-β-D-galactopyranose to produce a glycosyl conjugate with d.s. 41.1% (33 galactosyl residues/mol.). The glycosyl conjugate reacted with GdCl3 in aqueous buffer (pH 5.3) to produce the Gd chelate with no remaining free amino groups.

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:584597 CAPLUS
DN 127:274314
TI Role of Carbohydrate Structures in the Binding of β1-Latency-Associated Peptide to Ligands
AU Yang, Yibing; Dignam, John David; Gentry, Larry E.
CS Department of Biochemistry and Molecular Biology Paul Block Jr. Health Science Building, Medical College of Ohio, Toledo, OH, 43614-5804, USA
SO Biochemistry (1997), 36(39), 11923-11932
CODEN: BICHAW; ISSN: 0006-2960
PB American Chemical Society
DT Journal
LA English
AB Transforming growth factor β1 (TGF-β1) is a potent growth differentiation and morphogenesis factor. The amino-terminal 248 **amino acid** pro region of TGF-β1, the β1-latency-associated peptide (β1-LAP), is noncovalently associated with TGF-β1 in an inactive complex. Previous studies suggested that deglycosylated β1-LAP can not form this latent complex with TGF-β1. To study the role of the carbohydrate structures of β1-LAP in its biol. functions, we expressed simian β1-LAP in Escherichia coli with a 10 histidine residue tag on the N-terminus. This polypeptide was solubilized from inclusion bodies with 6 M guanidine hydrochloride and purified by **metal chelate** affinity chromatog. Purified β1-LAP was refolded to its dimeric form using a chaotrope-mediated folding procedure. The dimeric β1-LAP forms 90 kDa complexes with TGF-β1, TGF-β2, and TGF-β3, and reverses the inhibitory activity of TGF-β1 on Mv1Lu cells. Solid phase binding assays demonstrate that refolded β1-LAP binds to heparin and thrombospondin 1. FET cell adhesion promoted by refolded β1-LAP was blocked by an RGD peptide. Purified β1-LAP produced in Chinese hamster ovary cells, deglycosylated with N-glycosidase F, forms a 80-90 kDa complex with mature TGF-β1. The carbohydrate structures of β1-LAP are not required for binding to ligands or for its biol. activity.

L4 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:789399 CAPLUS
DN 123:192574
TI Metal-ion chelates with acidic saccharides and glycosaminoglycans, and methods of enhancing MRI imaging
IN Ranney, David F.
PA Access Pharmaceuticals, Inc., USA
SO PCT Int. Appl., 185 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9514491	A2	19950601	WO 1994-US13741	19941129
	WO 9514491	A3	19950706		
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
	RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2177468	AA	19950601	CA 1994-2177468	19941129
	CA 2177470	AA	19950601	CA 1994-2177470	19941129
	AU 9512629	A1	19950613	AU 1995-12629	19941129
	AU 696166	B2	19980903		
	EP 726781	A1	19960821	EP 1995-904770	19941129
	EP 726781	B1	20010822		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	EP 731713	A1	19960918	EP 1995-903644	19941129
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	JP 09509400	T2	19970922	JP 1994-515276	19941129
	JP 09509650	T2	19970930	JP 1994-515277	19941129
	AU 688838	B2	19980319	AU 1995-13324	19941129
	AU 9513324	A1	19950613		
	AT 204482	E	20010915	AT 1995-904770	19941129
PRAI	US 1993-160085	A1	19931129		
	WO 1994-US13740	W	19941129		
	WO 1994-US13741	W	19941129		

AB Agents are disclosed which comprise cationic or chemical basic metal chelators in association with hydrophilic carriers of anionic or chemical acidic saccharides, sulfatoids and glycosaminoglycans. In certain embodiments, the agents comprise metals and metal ions. Covalent and noncovalent chemical and phys. means are described for stabilizing the binding of the metal chelators to the carriers. Noncovalently bound compns. are described which give uniquely high payloads and ratio of metal chelator to carrier, ranging from a low of about 15% metal chelator by weight to a characteristic range of 70-90% metal chelator by weight Specific embodiments are described comprising deferoxamine, ferrioxamine, iron-basic porphine, iron-triethylenetetraamine, gadolinium DTPA-lysine, gadolinium DOTA-lysine and gadolinium with basic derivs. of porphyrins, porphines, expanded porphyrins, texaphyrins, and sapphyrins as the basic or cationic metal chelators, which are in turn, bound to acidic or anionic carriers, including one or more of acidic or anionic saccharides, and including sulfated sucrose, pentosan polysulfate, dermatan sulfate, essentially purified dermatan sulfate, essentially purified dermatan sulfate with a sulfur content of up to 9% and with selective oligosaccharide oversulfation, chondroitin sulfate, oversulfated chondroitin sulfate, heparan sulfate, beef heparin, porcine heparin, nonanticoagulant heparins, and other native and modified acidic saccharides and glycosaminoglycans. Also disclosed are methods of enhancing in vivo images arising from induced magnetic resonance signals, and methods of enhancing in vivo images in conjunction with ultrasound or X-rays. Preparation of agents of the invention is described. A Gd(III) chelate with an N-methyl-1,3-propanediamine derivative of DTPA was prepared, as was a paired-ion formulation containing the chelate and dermatan sulfate (Gd:MPD-DTPA:DS). The Gd:MPD-DTPA:DS was tested as a selected contrast agent in the MRI imaging of lactating breast carcinoma and of prostate adenocarcinomas in rats.

L4 ANSWER 11 OF 16 CAPLUS
AN 1993:538311 CAPLUS
DN 119:138311
TI Facilitation of carbohydrate digestion in warm-blooded animals with **amino acid** chelates of metal ions
IN Ashmead, H. Dewayne
PA Albion International, Inc., USA
SO PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9314638	A1	19930805	WO 1992-US9589	19921105
	W: CA				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE				
	US 5882685	A	19990316	US 1992-823827	19920122
PRAI	US 1992-823827	A	19920122		

AB Carbohydrate digestion in warm-blood animals is facilitated by enhancement of disaccharidase activities in the mucosal cells of the small intestine with **amino acid** chelates of Fe, Zn, Cu, Mn, Co, Mg, and Cr ions. K may addnl. be given as an inorg. salt or **amino acid** chelate. The chelates are administered orally. Rats were provided feed containing 0.5-1.5% **amino acid**-chelated Fe/kg feed. After 10 days, the activities of maltase, lactase, saccharase, trehalase, and cellobiase in intestinal membranes had increased 46-59%. Similar expts. with farm animals (dairy cows, swine, broiler chicks, turkeys) resulted in .apprx.56% improvement in carbohydrate digestion coefficient

L4 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:487925 CAPLUS
DN 115:87925
TI Structural and biological properties of human recombinant myeloperoxidase produced by Chinese hamster ovary cell lines
AU Moguilevsky, Nicole; Garcia-Quintana, Lida; Jacquet, Alain; Tournay, Christophe; Fabry, Luc; Pierard, Laurent; Bollen, Alex
CS Dep. Appl. Genet., Univ. Libre Bruxelles, Nivelles, B-1400, Belg.
SO European Journal of Biochemistry (1991), 197(3), 605-14
CODEN: EJBCAI; ISSN: 0014-2956
DT Journal
LA English
AB The cDNA encoding human myeloperoxidase carries three ATG codons in frame; 144, 111 and 66 bp upstream from the proprotein DNA sequence. In order to determine the most efficient signal sequence, three cDNA modules starting at each of the ATG were cloned into an eukaryotic expression vector and stably expressed in Chinese hamster ovary cell lines. In all three cases, recombinant human myeloperoxidase (recMPO) was secreted into the culture medium of transfected cells, indicating that each of the signal peptides functions efficiently. One of the recombinant cell lines, which was amplified using methotrexate, overexpresses enzymically active recMPO up to 6 μg·mL-1·day-1. The recombinant product was purified by a combination of ion-exchange and **metal-chelate** chromatog., and characterized in terms of mol. mass, amino-terminal **amino acid** anal., glycosylation, physicochem. properties and biol. activity. The data show that recMPO is secreted essentially as a monomeric, heme-containing, single-chain precursor of 84 kDa which exhibits peroxidase activity. Amino-terminal anal. indicated that cleavage of the signal peptide occurs between **amino acids** 48 and 49. In addition, recMPO appeared to be glycosylated up to the last stage of sialylation, to an extent similar to that of the natural enzyme. Specific activity measurements as well as stability data, in various pH, temperature, ionic strength and reducing conditions, indicated that the recombinant single-chain enzyme behaves essentially in the same way as the natural two-chain mol. Finally, recMPO was shown to exert potent cytotoxicity towards Escherichia coli when provided with its physiol. substrates, i.e. hydrogen peroxide and chloride ions.

L4 ANSWER 13 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1990:587609 CAPLUS
DN 113:187609
TI Assay with enhanced electrochemiluminescence, and methods, reagents, kits, and apparatus for performing the assay
IN Shah, Haresh P.; Von Borstel, Reid W.; Tyagi, Surendera K.
PA IGEN Inc., USA
SO PCT Int. Appl., 86 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9005302	A1	19900517	WO 1989-US4915	19891103
	W: AU, DK, FI, JP, KR, NO				
	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	CA 2002083	AA	19900503	CA 1989-2002083	19891102
	CA 2002083	C	20010109		
	AU 8946200	A1	19900528	AU 1989-46200	19891103
	AU 644779	B2	19931223		
	EP 441875	A1	19910821	EP 1989-912852	19891103
	EP 441875	B1	19970709		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	JP 04502208	T2	19920416	JP 1990-500350	19891103
	AT 155248	E	19970715	AT 1989-912852	19891103
PRAI	US 1988-267509	A	19881103		
	WO 1989-US4915	A	19891103		

OS MARPAT 113:187609

AB A composition for use in an electrochemiluminescence (ECL) assay comprises (1) a metal-containing ECL moiety which, when oxidized by an effective amount of electrochem. energy, can be converted to an excited state from which electromagnetic radiation is emitted; (2) a species which, upon oxidation, forms a strong reducing agent; (3) an electrolyte medium in which the ECL moiety and the species of (2) can be oxidized; and (4) a substance in the presence of which the amount of radiation emitted by the composition is increased. The ECL moiety is, e.g., a **metal chelate**, and the species of (2) above is, e.g., a carboxylic acid. The radiation-increasing substance is, e.g., p-RC6H4(OR1)xOH (R = H, CnH2n+1; R1 = CnH2n; x = 0-70; n = 1-20). An apparatus for performing the method of the invention is described (diagrams included). Thus, theophylline was determined in normal, hemolyzed, lipemic, and icteric sera using a homogeneous ECL immunoassay employing oxalic acid as the reducing agent and Triton X-100 as the radiation-increasing substance. Calibration curves are given. The method and compns. of the invention can be used to determine a variety of analytes [proteins, nucleic acids, (in)organic mols., etc.].

L4 ANSWER 14 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1989:473286 CAPLUS

DN 111:73286

TI Purification and partial characterization of an unusual protein of Plasmodium falciparum: histidine-rich protein II

AU Panton, Lindsey J.; McPhie, Peter; Maloy, W. Lee; Wellems, Thomas E.; Taylor, Diane W.; Howard, Russell J.

CS Lab. Parasit. Dis., Natl. Inst. Allergy Infect. Dis., Bethesda, MD, USA

SO Molecular and Biochemical Parasitology (1989), 35(2), 149-60
CODEN: MBIPDP; ISSN: 0166-6851

DT Journal

LA English

AB The human malarial parasite P. falciparum secretes a histidine-rich protein (HRP-II) from infected erythrocytes. HRP-II has a very high content of histidine (H) (34%), alanine (A) (37%) and aspartic acid (D) (10%) and many contiguous repeats of the sequences AHH and AHHAAD. The histidine content of the protein suggested the potential to bind metal ions. **Metal chelate** chromatog. demonstrated an extraordinary capacity of HRP-II to bind Zn2+. This characteristic was used to isolate the extracellular protein. The HRP-II was further purified by antibody affinity chromatog. The identity of the purified protein was verified by relative mol. weight on denaturing polyacrylamide gels, by reactivity with monoclonal antibodies and monospecific rabbit antiserum, and by comparison of the **amino acid** anal. with that derived from the cloned gene sequence. Anal. of the sequence for periodicities using the hydrophobic moment method indicated that HRP-II may potentially from a 3/10 helix. Immunopptn. of HRP-II from culture supernatants of parasites metabolically labeled with tritiated sugars showed that the extracellular form of HRP-II is a glycoprotein containing galactose.

L4 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1987:572003 CAPLUS

DN 107:172003

TI Luminescent **metal chelate** labels and means for detection
IN Bard, Allen J.; Whitesides, George M.
PA Hyperion Catalysis International, Inc., USA
SO PCT Int. Appl., 76 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8602734	A1	19860509	WO 1985-US2153	19851030
	W: AU, DK, FI, JP, KR, NO				
	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	US 5238808	A	19930824	US 1985-789113	19851024
	CA 1339835	A1	19980421	CA 1985-494077	19851029
	IL 76872	A1	20001206	IL 1985-76872	19851029
	AU 8550200	A1	19860515	AU 1985-50200	19851030
	EP 199804	A1	19861105	EP 1985-905702	19851030
	EP 199804	B1	19940406		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	JP 62500663	T2	19870319	JP 1985-505060	19851030
	JP 08026054	B4	19960313		
	AT 104057	E	19940415	AT 1985-905702	19851030
	JP 09110890	A2	19970428	JP 1996-194842	19851030
	AT 230114	E	20030115	AT 1993-108292	19851030
	US 5221605	A	19930622	US 1990-609072	19901030
	US 5310687	A	19940510	US 1991-789418	19911104
	JP 06065271	A2	19940308	JP 1992-351891	19921119
	EP 580979	A2	19940202	EP 1993-108292	19930521
	EP 580979	A3	19940216		
	EP 580979	B1	20021218		
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	US 5453356	A	19950926	US 1993-159770	19931130
	US 6140138	A	20001031	US 1994-238224	19940504
	JP 07173185	A2	19950711	JP 1994-235511	19940929
	JP 2702075	B2	19980121		
	US 5714089	A	19980203	US 1995-477579	19950607
	US 5731147	A	19980324	US 1995-474760	19950607
	HK 1013861	A1	20030725	HK 1998-115088	19981223
PRAI	US 1984-666987	A	19841031		
	US 1985-789113	A	19851024		
	EP 1985-905702	A	19851030		
	WO 1985-US2153	A	19851030		
	US 1986-858353	B1	19860430		
	US 1990-604939	B1	19901029		
	US 1991-789418	A1	19911104		
	US 1994-238224	A3	19940504		
	JP 1994-235511	A3	19940929		

AB Electrochemiluminescent labels for homogeneous specific binding assays are described which contain a luminescent organometallic compound, e.g. of Ru or Os. The substance to be labeled is attached by amide or amine linkages to mono- and polydentate ligands which bind the metal. Ru dichlorobis(2,2'-bipyridine) reacted with 2,2'-bipyridine-4,4'-dicarboxylic acid to form Ru bis(2,2'-bipyridine)(2,2'-bipyridine-4,4'-dicarboxylic acid), which was converted to an active ester with DCC and N-hydroxysuccinimide. Rabbit serum containing anti-Salmonella antibody was mixed with the active ester for 1 h and the reaction was quenched by addition of diethanolamine. Salmonella Cells treated with the Ru-labeled antibody fluoresced brightly when viewed with a fluorescent microscope.

L4 ANSWER 16 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1979:4799 CAPLUS
DN 90:4799
TI Composition for improving biologic development
IN Ashmead, Harvey H.
PA USA
SO U.S., 7 pp.
CODEN: USXXAM

DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4103003	A	19780725	US 1976-680078	19760426
PRAI	US 1969-872734	A2	19691030		
	US 1972-293268	A2	19720928		

AB Minerals which are highly available are manufactured in a feed supplement containing a **metal chelated** with peptides and **amino acids** and sep. prepared and combined, as **metal chelated** with hydrolyzed **carbohydrates**. For example, to a boiling mixture containing 15 lb 37% HCl and 73% H2PO4, 24 lb fish meal was added; after hydrolysis, 35 lb of Fe oxide (58% Fe) was gradually stirred in. Then, 100 lb starch [9005-25-8], 76 lb fish meal, and 4 lb NH4OH were mixed in; the resulting starch hydrolyzate was gradually combined with the protein hydrolyzate, and the combination (at pH 2-3) was heated at 250°F and 15 psi for 1 h. The mixture was cooled and NH4OH added to pH 5-7, when the mixture tended to precipitate This preparation, at 3-5 lb/ton of feed, was successful is treating animals for anemia.

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=> s l2 and reducing sugar
        325509 REDUCING
        240971 SUGAR
          6526 REDUCING SUGAR
                 (REDUCING(W)SUGAR)
L5           0 L2 AND REDUCING SUGAR
```

10/605,987

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	8764	metal adj chelate	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/07/20 13:39
L2	4555	L1 and (amino adj acid)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/07/20 13:40
L3	3000	l2 and sugar	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/07/20 13:40
L4	6	l3 and (metal adj component)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/07/20 13:51
L5	17	l3 and (reducing adj sugar)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2005/07/20 13:51